1. Background

Oregon has made tremendous progress in improving air quality. During the 1970s and 1980s, Oregon routinely violated federal standards for particulate, ozone and carbon monoxide. Thanks to federal, state and local pollution control programs, most areas in Oregon now consistently meet these standards. However, population growth without pollution prevention activities in many areas of the state could lead to worsening air quality.

2. Oregon’s biggest air quality challenges are:

* Meeting and maintaining federal standards for particulate and ozone;
* Understanding and protecting people from toxic air pollutants such as benzene and diesel particulate;
* Reducing greenhouse gas (GHG) emissions to meet state goals.

3. To meet federal standards and state benchmarks and goals, DEQ:

* Monitors and assesses the level of pollutants in the air;
* Develops emission reduction strategies when monitored pollution levels indicate a problem;
* Implements the strategies through regulations and permits, business assistance and compliance activities.

4. Meeting Federal Health-based Air Quality Standards

EPA sets national air quality standards or allowable concentrations for six common air pollutants: particulate (smoke and dust), ozone (smog), carbon monoxide, lead, sulfur dioxide and nitrogen dioxide. In Oregon, the problem pollutants are particulate and ozone.

Federal air quality standards can be exceeded several times before a violation occurs, because they are based on three year averages. For example, the 24 hour particulate standard is the three year average of the third highest monitored value. If exceedances are detected, DEQ informs local governments and assists with planning to prevent violations.

DEQ and local governments actively work to prevent violations - both to protect public health and avoid the federal designation that can severely hamper business growth. Once an area violates federal standards, EPA has the authority to designate it as “nonattainment”. DEQ is required to work with communities in a nonattainment area to develop an attainment plan to bring the area back into compliance with the standard. Attainment plans reduce all significant sources of problem pollutants.

Industrial requirements can include emission reductions, installation of pollution control devices, and mandating that businesses increasing their emissions find offsetting reductions elsewhere in the community. Klamath Falls and Oakridge have been officially designated nonattainment for fine particulate and DEQ has submitted plans for them to EPA.

When an attainment plan proves successful and air quality standards are met, DEQ may petition EPA to remove that area’s nonattainment classification. To apply for reclassification of an area, DEQ must first develop a “maintenance” plan that shows how the area will stay within health standards for at least 10 years. DEQ has developed and EPA has approved maintenance plans for all areas where this was required.

5. Toxic air pollutants

There are no national standards for a group of cancer causing pollutants known as toxic or hazardous air pollutants. There are literally hundreds of toxic air pollutants, and Congress has listed 188 of these pollutants for regulation under the federal Clean Air Act. Instead of setting health-based air concentration standards for these pollutants, EPA developed technology and risk based emission control requirements for the many categories of industry that emit the federally listed 188 hazardous air pollutants. These regulations are known as the National Emission Standards for Hazardous Air Pollutants (NESHAPS), and EPA has delegated implementation authority for most of these standards to DEQ.

For toxic air pollutants, DEQ implements federal air toxics pollution controls or NESHAPS through industrial source air permits. To fill in the gaps in the federal program, DEQ developed a state air toxics program that focuses on identifying and reducing the sources of cumulative emissions in geographic areas.

In October 2003, the Environmental Quality Commission adopted air toxics rules that allow DEQ to monitor, inventory and predict toxic air pollution. Through the state air toxics program, DEQ:

* Worked with stakeholders, and a science advisory committee to set benchmarks or goals for 52 toxic air pollutants. These state air toxics benchmarks are updated every five years and that process is currently underway.
* Uses a geographic approach to assess and solve air toxics problems in communities. DEQ’s first project working with a community to identify and make plans to reduce air toxics from sources causing the most risk was in Portland and was known as the Portland Air Toxics Solutions project. The project includes emission reduction recommendations for wood burning, diesel engines, gasoline cars and trucks and plans for research to improve data on metals emissions.
* Uses a statewide approach to reduce air toxics emissions from sources statewide. Examples of this approach are DEQ’s Clean Diesel Program, providing incentives for cleaner engines; Heat Smart, requiring removal of old dirty woodstoves upon home sale, and gasoline fueling regulations to capture benzene vapors.

6. Green House Gases

Greenhouse gas (GHG) emissions and their contribution to global climate change are also a concern in Oregon. To address emissions from transportation, DEQ developed clean fuel standards that require a 10 percent reduction of lifecycle carbon intensity over a 10 year period. Oregon’s Clean Fuels Program uses a market-based approach where regulated parties must decide how to balance which fuel types (gasoline, diesel, ethanol, biodiesel, natural gas, electricity, hydrogen, or other alternative fuels) they purchase in order to meet the annual standards. Fuel importers and bio-fuel producers began reporting in April 2014. Recent legislation removed the 2015 program sunset and DEQ is developing rules to further implement the program.

In addition to the Clean Fuels Program, DEQ addresses GHG reductions by:

* Tracking emissions from industrial sources;
* Leading the state’s response and input to EPA on their planned rules to cut carbon pollution from existing power plants under the authority of the Clean Air Act 111(d).

 